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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WILLIAM E. SLACK

Appeal 2009-003557
Application 10/706,713
Technology Center 1700

Decided: March 10, 2010

Before BRADLEY R. GARRIS, PETER F. KRATZ, and
MARK NAGUMO, *Administrative Patent Judges*.

GARRIS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1-18. We have jurisdiction under 35 U.S.C. § 6.

We AFFIRM for the reasons expressed in the Answer and below.

STATEMENT OF THE CASE

Appellant claims a stable liquid, allophanate-modified, partially trimerized diphenylmethane diisocyanate (claim 1) and a process for the

preparation thereof (claim 10). This partially trimerized diphenylmethane diisocyanate is defined as comprising the reaction product of certain ingredients including:

a)(1) a diphenylmethane diisocyanate comprising:

(i) from 10 to 40% by weight of 2,4'-diphenylmethane diisocyanate,

(ii) from 0 to 6% by weight of 2,2'-diphenylmethane diisocyanate, and

(iii) from 54 to 90% by weight of 4,4'-diphenylmethane diisocyanate, wherein the %'s by weight of a)(1)(i), a)(1)(ii) and a)(1)(iii) total 100% by weight of a)(1).

(claim 1).

Representative claims 1 and 3 read as follows:

1. A stable liquid, allophanate-modified, partially trimerized diphenylmethane diisocyanate having an NCO group content of from 15 to 30% by weight and comprising the reaction product of:
a)(1) a diphenylmethane diisocyanate comprising:

(i) from 10 to 40% by weight of 2,4'-diphenylmethane diisocyanate,

(ii) from 0 to 6% by weight of 2,2'-diphenylmethane diisocyanate, and

(iii) from 54 to 90% by weight of 4,4'-diphenylmethane diisocyanate, wherein the %'s by weight of a)(1)(i), a)(1)(ii) and a)(1)(iii) total 100% by weight of a)(1);

and

b) an organic compound containing at least one hydroxyl group, in the presence of a catalytic amount of

c) at least one catalyst selected from the group consisting of (1) one or more trimer catalysts, (2) one or more allophanate catalysts, (3) an allophanate-trimer catalyst system and (4) mixtures thereof, with the proviso that when said catalyst c) (2) is present, then catalyst c) (1) and/or catalyst system c)(3) is also present;

wherein component b) is present in a quantity such that there are from about 0.01 to about 0.25 equivalent hydroxyl groups per equivalent of isocyanate of the MDI present, at least about 50% of the urethane groups are converted to allophanate groups by c) said catalyst or catalyst system, and a catalyst stopper is added once the desired NCO group content is attained.

3. The stable liquid, allophanate-modified, partially trimerized diphenylmethane diisocyanate of Claim 1, wherein a)(1) said diphenyl-methane diisocyanate comprises (i) from 20 to 35% by weight of the 2,4'-isomer, (ii) from 0 to 2% by weight of the 2,2'-isomer, and (iii) from 63 to 80% by weight of the 4,4'-isomer, with the %'s by weight of a)(1)(i), a)(1)(ii) and a)(1)(iii) totaling 100% by weight of a)(1).

The references set forth below are relied upon by the Examiner as evidence of obviousness:

Scholl	5,124,370	Jun. 23, 1992
Slack ('272)	5,663,272	Sep. 2, 1997
Rosthauser	5,783,652	Jul. 21, 1998
Slack ('609)	5,955,609	Sep. 21, 1999
Slack ('308)	6,127,308	Oct. 3, 2000
Markusch	6,482,913 B1	Nov. 19, 2002
Slack ('339)	6,887,300 B2	May 3, 2005
Slack ('746)	6,991,746 B2)	Jan. 31, 2006

The Examiner rejects claims 1-18 under 35 U.S.C. § 103(a) as being unpatentable over Slack '609 or Slack '308 in view of Scholl and further in view of Slack '272 or Slack '399 or Slack '746 or Rosthauser or Markusch.

The Examiner concedes that each of Slack '609 and Slack '308 fails to disclose the diphenylmethane diisocyanate (MDI) isomer mixture defined by

representative claims 1 and 3 but concludes that it would have been obvious for one with ordinary skill in this art to react such isomer mixtures according to the teachings of Slack '609 or '308 in view of Scholl's use of such mixtures to produce stable liquid polyisocyanate mixtures of the diphenylmethane series (MDI) and further in view of the respective teachings in the remaining applied references (Ans. 3-5).

We will adopt as our own the findings of fact, conclusions of law, and rebuttals to argument expressed by the Examiner in the Answer (Ans. 3-9). We add the following comments for emphasis.

As an initial matter, we agree with the Examiner that Appellant has misinterpreted representative claims 1 and 3 as excluding polymeric MDI (App. Br. 8) and have misinterpreted Scholl's disclosure of MDI isomers ranges (App. Br. 7) for the reasons fully explained in the Answer (Ans. 6-7). In response, Appellant states that "Appellants [sic] simply has a different interpretation of the claims and of the Scholl . . . reference than the construction offered by the Examiner" (Reply Br. 4). However, on the record before us, the Examiner's interpretation is reasonable and does not become unreasonable simply because Appellant might have some support for the different interpretation of the claims and the Scholl reference. *See In re Morris*, 127 F.3d 1048, 1055-56 (Fed. Cir. 1997).

Appellant argues that replacing the MDI isomer mixture of Slack '609 or '308 with the MDI isomer mixtures exemplified by Scholl would not result in the claimed invention (App. Br. 8-9). This argument is unpersuasive for two independent reasons. First, the argument is based on Appellant's above-noted misinterpretations of the claims and the Scholl reference. Second, the argument is implicitly premised on an incorrect test

for obviousness which requires Scholl's exemplified isomer mixtures to be bodily incorporated into the reaction scheme of Slack '609 or '308. The legally correct test for obviousness is what the combined teachings of the applied references would have suggested to those of ordinary skill in the art. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). For the reasons detailed by the Examiner, the combined teachings of the applied references would have suggested replacing the MDI isomer mixtures of Slack '609 or '308 with the broadly defined MDI isomer mixtures taught by Scholl to yield stable liquid polyisocyanate mixtures of the diphenylmethane series.

In this latter regard, Appellant further argues that an artisan could not reasonably expect success in combining the applied reference teachings as proposed by the Examiner because Examples 18 and 19 of the Specification "clearly illustrate that stable liquid, partially trimerized products can not be prepared from 100% monomeric MDI compositions as described by the Scholl . . . reference" (App. Br. 10; *see also* Reply Br. 6-11).

We disagree with Appellant's contention that Examples 18 and 19 "clearly illustrate that stable liquid, partially trimerized products can not be prepared from 100% monomeric MDI compositions as described by the Scholl . . . reference" (App. Br. 10). This contention is directly contrary to Scholl's express teaching that the disclosed MDI isomer mixtures "provide polyisocyanate mixtures of the diphenyl methane series (MDI) which would be stable in storage and liquid" (col. 1, ll. 54-56). Because the Scholl reference is a US patent, it is presumptively valid by statute. *See* 35 U.S.C. § 282 (2007); *see* also, *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1355 (Fed. Cir. 2003) (relying on precedent as well as § 282, the court held that " a presumption arises that both the claimed and unclaimed

disclosures in a prior art patent are enabled."). This presumption of validity is not overcome by Examples 18 and 19 of Appellant's Specification. At most, these examples merely show that it is possible to utilize Scholl's MDI isomer mixtures without obtaining the stable liquid results taught by Scholl. Such a showing is inadequate to overcome the strong presumption that the teachings of Scholl would enable an artisan to obtain the stable liquid results expressly taught by Scholl. *See In re Weber*, 405 F.2d 1403, 1407 (CCPA 1969) ("We do not think that appellants' mere showing that it is possible to operate within Mautner's disclosure without obtaining his results is sufficient to overcome the strong presumption that the process of a patent if used by one skilled in the art will produce the results alleged by the patentee.").

Finally, Appellant argues that the MDI isomer mixture defined by claim 3 would not have been obvious to one of ordinary skill in the art upon reading the applied references (App. Br. 15-17). Appellant's rationale in support of this argument corresponds to the rationale previously discussed above and is unpersuasive for the reasons expressed above and in the Answer.

In light of the foregoing, Appellant has failed to reveal harmful error in the Examiner's § 103 rejection of representative claims 1 and 3. We sustain, therefore, the rejection of these claims and of the other claims on appeal.

The decision of the Examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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